Amendment to the Claims

Claims 1-19 (canceled).

20. (currently amended) A method of producing ozone comprising the steps of:

passing a gas comprising oxygen through an electrode region;

generating intermittent bursts of corona discharge in the electrode region by energizing an electrode in the region with intermittent voltage pulses sufficient to cause an electric field in the electrode region to change at a rate faster than ~~3kV/mm/10ns~~ 10kV/mm/10ns.

21. (previously presented) A method as claimed in claim 20 comprising energizing the electrodes with voltage pulses having pulse widths of less than 100ns.

22. (canceled).

23. (currently amended) Apparatus for producing ozone comprising:

a housing defining a passage for a gas comprising oxygen;

first and second electrodes disposed adjacent the passage; and

a voltage pulse generating ~~means~~ circuit connected to the electrodes for generating voltage pulses between the electrodes sufficient to cause an electric field between the electrodes to change at a rate faster then ~~3kV/mm/10ns~~ 10kV/mm/10ns.

24. (previously presented) Apparatus as claimed in claim 23 wherein each voltage pulse has a pulse width of less than 100ns.

25. (canceled).

26. (currently amended) Apparatus as claimed in claim 23 wherein the voltage pulse generating ~~means~~ circuit comprises a self-oscillating circuit.

27. (previously presented) Apparatus as claimed in claim 26 wherein the self-oscillating circuit comprises a field effect transistor (FET) having an output circuit which is

connected to the first and second electrodes and a switch circuit for the FET, the switch circuit comprising a charge storage device and a switching device connected between the charge storage device and a gate of the FET, the switching device being operative to deposit charge from the charge storage device onto the gate, thereby to improve a rise time of a voltage in said output circuit of the FET.

28. (previously presented) Apparatus as claimed in claim 27 wherein the charge storage device comprises a capacitor and the switching device comprises a SIDAC.

29. (previously presented) Apparatus as claimed in claim 27 further comprising a transformer having a primary winding and a secondary winding, wherein the electrodes are connected to the secondary winding and the primary winding is connected to the output circuit of the FET.

30. (previously presented) Apparatus as claimed in claim 23 wherein the passage extends between an inlet to the housing an outlet therefrom.

31. (previously presented) Apparatus as claimed in claim 23 wherein the electrode is an annular electrode disposed in the housing and wherein the passage extends between the first electrode and the housing.

32. (previously presented) Apparatus as claimed in claim 31 wherein the housing is a metal housing serving as the second electrode and wherein an insulating layer for the first electrode is disposed between the first electrode and the housing.

33. (previously presented) An apparatus as claimed in claim 23 wherein the housing comprises an inner wall and is of an electricity insulating material, wherein the first electrode is disposed circumferentially outside the housing and wherein the second electrode is disposed within an inner wall of the housing, and wherein the passage is disposed between the second electrode and the inner wall.

34. (currently amended) Apparatus for producing ozone comprising:

a housing defining a passage for a fluid comprising oxygen;

first and second electrodes disposed adjacent the passage; and

a voltage pulse generating ~~means~~ circuit for generating a switched voltage which is applied to the electrodes to energize the electrodes;

wherein the voltage pulse generating ~~means~~ circuit comprises a field effect transistor (FET) connected to an output circuit which is connected to the electrodes and a switch circuit for the FET, the switch circuit comprising a charge storage device and a switching device, the switching device being connected to a gate of the FET ~~the switching device being operative to deposit charge from the charge storage device onto the gate of the FET~~.

35. (new) The apparatus of claim 34 wherein the switching device is connected between the gate of the FET and the charge storage device, the switching device being operative to deposit charge from the charge storage device onto the gate of the FET.